

### **Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the instant application:

### **Listing of Claims:**

1. (Currently Amended) A method for serving applications comprising the steps of:  
~~intermittently and without prompting sending component usage messages from each of a plurality of application components, each component usage message generated by a corresponding one of the plurality of application components and specifying activity information about the corresponding application component, said activity information specifying at least one of a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within a predetermined time interval, and a rate at which resources of the corresponding application component are used;~~

receiving from a centralized location at least one component status publication generated based upon activity information specified in at least one ~~of said~~ component usage messages generated by at least one application component, each said component status publication specifying a usage level for ~~[[an]]~~ the application component, wherein each said component usage message is generated after a predetermined period of time and is automatically delivered to the centralized location, wherein said component message specifies the activity information for the application component, and wherein the activity information specifies at least one among a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within the predetermined time interval, and a rate at which resources of the corresponding application component are used;

acquiring a client request to execute one or more computing tasks, wherein said computing tasks include at least one among a data processing task and a data management task;

selecting a server response for said client request from among a plurality of possible server responses to execute said computing tasks based at least in part upon said component status publications, wherein each possible server response differentially utilizes application components to execute said computing tasks; and,

responding to said client request with said selected server response.

2. (Currently Amended) The method of claim 1, further comprising the step of registering each of said application components with ~~[[a]]~~ the centralized location that publishes said component status publications.

3. (Currently Amended) The method of claim 1, wherein said application components comprise local components and external components, said step of selecting method further comprising ~~the steps of:~~

determining that a server response to execute said computing tasks can be provided using either one of said external components or one of said local components;

comparing an usage level of said external component specified in said component status publication with a predetermined usage threshold value; and,

if said usage threshold value is exceeded, using said local component to provide said server response for executing said computing tasks, otherwise using said external component to provide said server response for executing said computing tasks.

4. (Cancelled)

5. (Currently Amended) The method of claim ~~[[4]]~~ 1, further comprising the steps of:

specifying within said centralized location a usage message format; and,  
formatting said component usage messages in accordance with said usage message format.

6. (Currently Amended) The method of claim 5, said method further comprising the steps of:

~~conveying~~ receiving said client request and said at least one component status publication ~~[[to]]~~ in a control layer ~~of said centralized location;~~

calling from within said control layer a data method contained within an application layer ~~of said application server;~~ and,

activating at least one of said application components responsive to said calling step.

7. (Currently Amended) The method of claim 1, said selecting step further comprising ~~the steps of:~~

identifying said plurality of server responses for said client requests;

for each of said server responses for executing said computing tasks, determining a required utilization for each application component that generates said server response;

comparing said required utilizations with available application component capacity, wherein said available application component capacity is determined at least in part from said component status publications; and,

selecting said server response based at least in part upon said comparing step.

8. (Currently Amended) The method of claim 3, ~~said method further comprising the steps of:~~ wherein said component status publication specifies a state of said at least one application component, wherein said centralized location determines the state determining an overload condition based upon at least one of said component usage messages; and, wherein responsive to [[said]] an overload condition, said centralized location adjusts the specified state of adjusting said application server component in said component status publication from a steady-state to an overload-state, and wherein responsive to an end of said overload condition, said centralized location adjusts the specified state from the overload-state to the steady-state.

9. (Currently Amended) The method of claim 8, ~~said method~~ selecting step further comprising ~~the step of:~~

if said application ~~server~~ component is in said overload-state, selecting the server response that limits ~~limiting~~ usage of said application components which triggered said overload condition.

10. (Cancelled)

11. (Currently Amended) An autonomic system for serving applications comprising:

a plurality of application components, each application component ~~intermittently and without prompting sending~~ automatically generating and conveying component usage messages after a predetermined time interval, each component usage message generated by a corresponding one of the plurality of application components and specifying activity information about the corresponding application component, said activity information specifying at least one of a number of users accessing the corresponding application component, a number of requests received by the

corresponding application component within ~~[[a]]~~ the predetermined time interval, and a rate at which resources of the corresponding application component are used;

at least one ~~[[an]]~~ application server configured to receive client requests for executing one or more computing tasks and selectively provide server responses to said client requests, wherein said computing tasks include at least one among a data processing task and a data management task;

a status hub configured to receive said component usage messages from at least one ~~communicatively linked~~ of said application components communicatively linked to said status hub and to responsively publish at least one component status publication to the at least ~~one-communicatively-linked~~ application server, wherein each of said component status publications specifies a usage level for an associated one of said application components.

12. (Original) The system of claim 11, wherein one of said usage levels indicates an overload state, and wherein said status hub is configured to provide at least one overload message whenever completion of said client request requires an application component that is in said overload state, and wherein said server response comprises said overload message.

13 (Original) The system of claim 11, further comprising:

an application component monitor configured to transmit component usage messages for an associated application component.

14. (Original) The system of claim 11, wherein said application server is a multilayered application server configured to differentially provide said server responses to said client requests based at least in part upon said component status publications.

15. (Original) The system of claim 14, wherein said multilayered application server comprises:

an application layer containing a plurality of data methods, wherein at least a portion of said data methods utilize said application components.

16. (Original) The system of claim 14, wherein said multilayered application server further comprises:

a control layer configured to perform at least one action selected from the group comprising parsing parameters, checking input, fetching data objects, and calling methods.

17. (Original) The system of claim 14, wherein said multilayered application server further comprises:

a interface layer configured generate and format at least one electronic document containing said server response.

18. (Currently Amended) A system for serving applications, the system comprising:

~~a plurality of application components, each application component intermittently and without prompting sending component usage messages, each component usage message generated by a corresponding one of the plurality of application components and specifying activity information about the corresponding application component, said activity information specifying at least one of a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within a predetermined time interval, and a rate at which resources of the corresponding application component are used;~~

means for receiving from a centralized location at least one component status publication generated based upon activity information specified in at least one ~~of said~~ component usage messages generated by at least one application component, each said component status publication specifying a usage level for ~~[[an]]~~ the application component, wherein each said component usage message is generated after a predetermined period of time and is automatically delivered to the centralized location, wherein said component message specifies the activity information for the application component, and wherein the activity information specifies at least among a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within the predetermined time interval, and a rate at which resources of the corresponding application component are used;

means for acquiring a client request to execute one or more computing tasks, wherein said computing tasks include at least one among a data processing task and a data management task;

means for selecting a server response for said client request from among a plurality of possible server responses to execute said computing tasks based at least in part upon said component status publications, wherein each possible server response differentially utilizes application components to execute said computing tasks; and,

means for responding to said client request with said selected server response.

19. (Currently Amended) A ~~machine-readable~~ computer-readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a ~~machine~~ computer for causing the ~~machine~~ computer to perform the steps of:

~~intermittently and without prompting sending component usage messages from each of a plurality of application components, each component usage message generated by a corresponding one of the plurality of application components and specifying activity~~

~~information about the corresponding application component, said activity information specifying at least one of a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within a predetermined time interval, and a rate at which resources of the corresponding application component are used;~~

receiving from a centralized location at least one component status publication generated based upon activity information specified in at least one ~~of said component~~ usage messages generated by at least one application component, each said component status publication specifying a usage level for ~~[[an]] the~~ application component, wherein each said component usage message is generated after a predetermined period of time and is automatically delivered to the centralized location, wherein said component message specifies the activity information for the application component, and wherein the activity information specifies at least among a number of users accessing the corresponding application component, a number of requests received by the corresponding application component within the predetermined time interval, and a rate at which resources of the corresponding application component are used;

acquiring a client request to execute one or more computing tasks, wherein said computing tasks include at least one among a data processing task and a data management task;

selecting a server response for said client request from among a plurality of possible server responses to execute said computing tasks based at least in part upon said component status publications, wherein each possible server response differentially utilizes application components to execute said computing tasks; and,

responding to said client request with said selected server response.



20. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 19, further comprising the step of registering each of said application components with ~~[[a]]~~ the centralized location that publishes said component status publications.

21. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 19, wherein said application components comprise local components and external components, ~~said machine-readable storage~~ further comprising code sections for the steps of:

determining that a server response to execute said computing tasks can be provided using either one of said external components or one of said local components;

comparing an usage level of said external component specified in said component status publication with a predetermined usage threshold value; and,

if said usage threshold value is exceeded, using said local component to provide said server response for executing said computing tasks, otherwise using said external component to provide said server response for executing said computing tasks.

22. (Cancelled).

23. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 19, ~~wherein said acquiring step~~ further comprising code sections for the step of conveying said client request from a client browser through a proxy server ~~to an application server~~.

24. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 23, said ~~method~~ further comprising code sections for the steps of:

~~conveying~~ receiving said client request and said at least one component status publication ~~[[to]]~~ in a control layer ~~of said centralized location~~;

calling from within said control layer a data method contained within an application layer ~~of said application server~~; and,

activating at least one of said application components responsive to said calling step.

25. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 19, said ~~selecting step~~ further comprising code sections for the steps of:

identifying said plurality of server responses for said client requests;

for each of said server responses for executing said computing tasks, determining a required utilization for each application component that generates said server response;

comparing said required utilizations with available application component capacity, wherein said available application component capacity is determined at least in part from said component status publications; and,

selecting said server response based at least in part upon said comparing step.

26. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 21, ~~said method further comprising the steps of~~: wherein said component status publication specifies a state of said at least one application component, wherein said centralized location determines the state ~~determining an overload condition~~ based upon at least one of said component usage messages; ~~and~~, wherein responsive to ~~[[said]]~~ an overload condition, said centralized location adjusts the specified state of ~~adjusting~~ said application ~~server~~ component in said component status publication from a steady-state to

an overload-state, and wherein responsive to an end of said overload condition, said centralized location adjusts the specified state from the overload-state to the steady-state.

27. (Currently Amended) The ~~machine-readable~~ computer-readable storage of claim 26, ~~said method~~ further comprising code sections for the step of:

if said application ~~server~~ component is in said overload-state, selecting the server response that limits ~~limiting~~ usage of said application components which triggered said overload condition.

28. (Cancelled).